

REMARKS

35 U.S.C. § 112, second paragraph

Claim 28 has been rejected under 35 U.S.C. § 112, second paragraph as being indefinite.

However, no specific objection was raised. Withdrawal of the rejection is respectfully requested.

Claims 1-7, 9, 10, 12, 13, 28, 29, 31, 32, 34, 37, 39-41

Claims 1-7, 9, 10, 12, 13, 28, 29, 31, 32, 34, 37, 39-41 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Maru (US4365007) in view of Ito (US5227258) and in yet further view of Pettit (US6077620).

Claim 1 has been amended to require limitations not found in Maru, Ito, and Pettit. Particularly, claim 1 has been amended to require a resistive heater positioned in at least one of the locations selected from: between the electrodes, and along a fuel path at a point upstream from the fuel cell stack. Support for this amendment is found, *inter alia*, at paragraphs [00018], [00020], etc. of the present application.

Accordingly, any rejection based on these references would fail at least the third element of the *Graham* test.

Further, the addition of Steinfort (WO 02/41425), cited in the rejection of claim 38 to show an electric heater, would not result in a combination of teachings that would pass muster under the *Graham* test. Particularly, Maru, Ito, and Pettit fail to show a resistive heater. A review of the US Patent Application (US2004/0067400) corresponding to Steinfort confirms that, assuming that the US and WO publications are virtually identical, even with the addition of Steinfort to Maru, Ito, and Pettit, the rejection would fail at least the third element of the *Graham* test, as the claimed combination of features is not taught or suggested by the references.

Reconsideration and allowance of claim 1 is respectfully requested.

Claims 2-7, 9, 10, 12, 13, 28, 29, 31, 32, 34, 37, 39-41 depend from claim 1, and therefore incorporate the limitations of claim 1. By virtue of their dependence, claims 2-7, 9, 10, 12, 13, 28, 29, 31, 32, 34, 37, 39-41 are also believed to be allowable. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Reconsideration and allowance of claims 2-7, 9, 10, 12, 13, 28, 29, 31, 32, 34, 37, 39-41 is respectfully requested.

Regarding the rejection of claims 2, 3 and 7, Applicants note that the rejection fails to consider the dimensional limitations. Accordingly, it is believed that the limitations are novel. Reconsideration and allowance of claims 2, 3, and 7 is respectfully requested.

Regarding the rejection of claim 12, the Examiner indicates that the claimed dimension is a result effective variable. The courts have held that a particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977). In the instant case, the Examiner indicates that the size of the flow passage is a result effective variable because the size of the flow passage controls the amount of gas being reformed and the amount of energy generated by the fuel cell. Applicants respectfully challenge such an assertion, and rather assert that the Examiner's assertion is erroneous on several grounds. First, the amount of gas being reformed and energy generated by the fuel cell is a function of pressure and feed rate rather than of the flow passage size. See, e.g., paragraph [00011] of the present application, which states in pertinent part: "[t]he MEMS processes allow individual control of gas flow to each cell through use of microvalves as well as the ability to control and regulate gas pressure or fuel flow throughout the device."

Second, and perhaps more compelling, is that the Examiner's assertion finds no support in the art of record. Because this feature is not found in the prior art, the rejection of claim 12 relies on official notice. Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be

common knowledge in the art are capable of instant and unquestionable demonstration as being well-known. As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner must be “capable of such instant and unquestionable demonstration as to defy dispute” (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)). It is never appropriate to rely solely on “common knowledge” in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based. *Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697.

Applicant respectfully challenges the taking of official notice, and respectfully asserts that it was not notorious and well known in the art of fuel cells at the time of invention to have flow passages within the claimed dimensions as suggested by the Examiner. As evidence of the erroneous taking of official notice, Applicants points to the absence of any mention that the prior art teaches or suggest the claimed dimensions or of controlling a fuel flow rate by passage thickness. To assert that it would have been obvious to construct a flow passage within the claimed range is simply too tenuous an assertion. Accordingly, claim 12 is believed to be distinguishable from the art of record in nay combination.

If a future rejection of claim 12 relies on Official Notice, Applicants request a specific showing in the art of fuel cells of flow control using dimensions of a flow passage, and that meets all of the *Graham* criteria, and further that predates Applicants’ date of invention.

Claim 8

Claim 8 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Maru (US4365007) in view of Ito (US5227258) and in yet further view of Pettit (US6077620) and in still yet further view of Carter (US2003/0232230).

Claim 8 depends from claim 1, and therefore incorporates the limitations of claim 1. Claim 1 is believed to be allowable over Maru, Ito and Pettit, as discussed in detail above. Claim 1 is also believed to be allowable over the combination of Maru, Ito, Pettit and Carter, as the combination of art fails to teach or suggest all limitations of claim 1, particularly as amended. Accordingly, claim 8 is believed to be allowable over the combination of art proposed in the rejection.

Claims 11, 39, 40

Claims 11, 39 and 40 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Maru (US4365007) in view of Ito (US5227258) and in yet further view of Pettit (US6077620) and in still yet further view of Mallari (US2003/0044674).

Claims 11, 39 and 40 depend from claim 1, and therefore incorporate the limitations of claim 1. Claim 1 is believed to be allowable over Maru, Ito, and Pettit, as discussed in detail above. Claim 1 is also believed to be allowable over the combination of Maru, Ito, Pettit and Mallari, as the combination of art fails to teach or suggest all limitations of claim 1, particularly as amended. Accordingly, claims 11, 39 and 40 are believed to be allowable over the combination of art proposed in the rejection.

Claim 38

Claim 38 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Maru (US4365007) in view of Ito (US5227258) and in yet further view of Pettit (US6077620) and in still yet further view of Steinfort (WO 02/41425).

Claim 8 depends from claim 1, and therefore incorporates the limitations of claim 1. Claim 1 is believed to be allowable over Maru, Ito and Pettit, as discussed in detail above. Claim 1 is also believed to be allowable over the combination of Maru, Ito, Pettit and Steinfort, as the combination of art fails to teach or suggest all limitations of claim 1, particularly as amended. Accordingly, claim 38 is believed to be allowable over the combination of art proposed in the rejection.

Claim 42

Claim 42 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Maru (US4365007) in view of Ito (US5227258) and in yet further view of Pettit (US6077620) and in still yet further view of Sederquist (US2003/0003332).

Claim 8 depends from claim 1, and therefore incorporates the limitations of claim 1. Claim 1 is believed to be allowable over Maru, Ito and Pettit, as discussed in detail above.

Claim 1 is also believed to be allowable over the combination of Maru, Ito, Pettit and Sederquist, as the combination of art fails to teach or suggest all limitations of claim 1, particularly as amended. Accordingly, claim 42 is believed to be allowable over the combination of art proposed in the rejection.

New Claims

New claims have been added to further define and vary the scope of the present invention. The claims are fully supported in the present application and drawings as originally filed. No new matter has been added. Allowance of the new claims is respectfully requested.

Conclusion

In the event that the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, he or she is respectfully requested to initiate the same with the undersigned at (925) 422-7073.

Respectfully submitted,



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